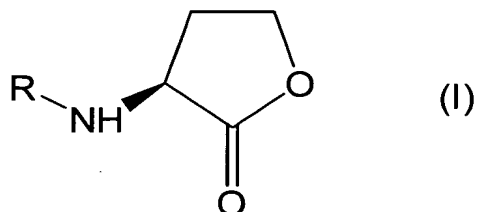


What is claimed is:

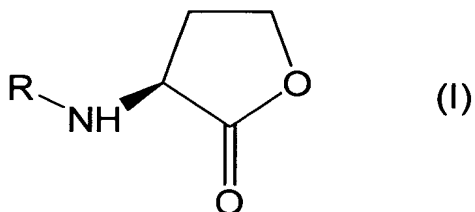
1. A method of inhibiting Akt, comprising using a compound represented by formula I:



wherein R is C₄₋₃₀ linear or branched acyl, which may be substituted.

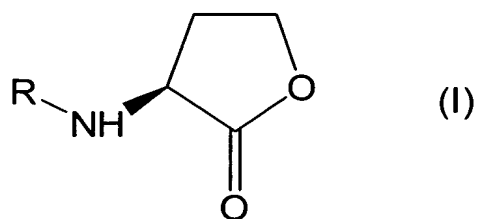
2. The method of claim 1, wherein R is C₄₋₃₀ linear or branched acyl having oxo at position 3.

3. A method of inducing apoptosis in cells, comprising using a compound represented by formula I:



wherein R is as defined above.

4. A method of screening for a substance inhibiting acylated homoserine lactone, comprising culturing animal cells with a test substance in the presence of acylated homoserine lactone represented by formula I:



wherein R is as defined above,

and detecting inhibition of Akt activity or inhibition of the survival signalling pathway in which Akt is involved in the cells.

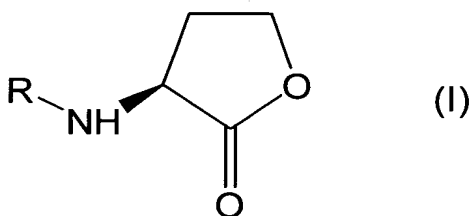
5. The method of claim 4, wherein inhibition of the survival signalling pathway in which Akt is involved is detected by detecting apoptosis.

6. A substance inhibiting acylated homoserine lactone, which is identified by the screening method of claim 4.

7. An acylated homoserine lactone inhibitor, which is identified by the screening method of claim 4.

8. A kit for using in the screening method of claim 4, comprising the following elements:

a) an acylated homoserine lactone represented by formula I:



wherein R is as defined above,

b) an animal cell, and

c) a means for measuring Akt activity.

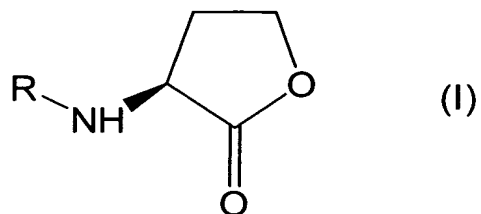
9. A substance inhibiting acylated homoserine lactone, which is identified by the screening method of claim 5.

10. An acylated homoserine lactone inhibitor, which is identified by the screening

method of claim 5.

11. A kit for using in the screening method of claim 5, comprising the following elements:

a) an acylated homoserine lactone represented by formula I:



wherein R is as defined above,

b) an animal cell, and

c) a means for measuring Akt activity.